

Remarks

Reconsideration of the above-identified patent application is respectfully requested. Claims 1-95 are pending in this application. Claims 1, 10, 11, 14, 15, 18, 28, 36, 44, 51, 53-56, 63, 67, 71, and 78 are currently amended.

Claims 1-9, 18, 25-27, 51-62, and 71-77 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,181,992 to Gurne et al. (Gurne) in view of U.S. Patent No. 6,925,368 to Funkhouser et al. (Funkhouser). Claims 10-17, 19-24, 28-50, 63-70, and 78-95 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gurne in view of Funkhouser and in further view of U.S. Patent No. 6,430,485 to Hullinger (Hullinger). For at least the following reasons, the Examiner's rejections should be withdrawn.

Independent claim 1, as amended, recites "a first interface configured for operatively coupling to a first network segment of the vehicle communications network, . . . a second interface configured for operatively coupling to a second network segment of the vehicle communications network, . . . and a third interface including a universal serial bus (USB) controller . . . configured for operatively coupling to the remote computer." The first network segment of the vehicle is "configured for communications according to a first protocol," while the second network segment is "configured for communications according to a second protocol." The prior art references relied upon by the examiner, independently or in combination, do not disclose or suggest the limitations of amended claim 1.

Gurne discloses a hand held unit 10 which connects to a car 12 via a vehicle interface cable 16 and also connects to a master station 14 via a general purpose interface bus (GPIB) cable 18. (Gurne, FIG. 1; col. 3, lines 43-46.) The hand held unit 10 of Gurne includes three interfaces: a 36-way vehicle interface connection 42, a GPIB master station interface connection 44, and an RS-232 serial connection 40 for "communicating with other computers and computer peripherals." (Gurne, FIG. 3; col. 4, lines 29-45.) The hand held unit 10 also includes connection points 32-38 for digital multi-meter probes and a peripheral expansion port 48. (Id.) Gurne teaches that different types of cables 16 may support for different communications protocols, but each type of cable is connected to the same, sole vehicle interface 42 of the hand held unit 10. (Gurne, col. 4, line 41 to col. 5, line 2.) Nowhere does Gurne disclose "a second interface configured for operatively coupling to a second network segment of the vehicle communications network;" rather, the GPIB interface 44 and RS-232 interface 40 of Gurne are used only to communicate with computer systems remote from the vehicle. (See, e.g., Gurne, col. 12, lines 34-35.)

Funkhouser also fails to disclose an adapter including "a first interface configured for operatively coupling to a first network segment" and "a second interface configured for operatively coupling to a second network segment" of a vehicle. Funkhouser discloses a data acquisition and transfer (DAT) device 12 which includes a first data link 14 which connects to the OBD II port 16 of a vehicle 18 and a second data link 22 (preferably USB) which connects to a personal computer 26. (Funkhouser, FIGS. 1-2; col. 6, lines 8-17; col. 8, lines 35-63.) The DAT device 12 of Funkhouser may optionally have a third interface, such as an infrared link, a Bluetooth link, or a modem, but these

interfaces are each for communicating with a remote system, not the vehicle 18. (Funkhouser, col. 16, lines 10-31.) As neither Gurne nor Funkhouser disclose the limitations of amended claim 1, the combination cannot support a prima facie case of obviousness under 35 U.S.C. § 103(a), and withdrawal of this rejection is therefore respectfully requested.

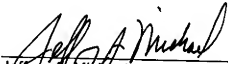
Applicants further note that Hullinger likewise fails to show or disclose the adapter of amended claim 1. The device of Hullinger, wireless network node 40A, is connected to the serial data bus 18 of vehicle 13 at a single diagnostic port 36 by a single J1939 compatible cable 39. (Hullinger, FIGS. 1-2; col. 3, lines 37-59; col. 4, lines 25-26.) Hullinger does teach connection via the RS-485 or UART ports of vehicle control system 10 as an alternative to the J1939 port (col. 5, lines 23-35); but nowhere teaches an adapter having both "a first interface configured for operatively coupling to a first network segment" and "a second interface configured for operatively coupling to a second network segment" of a vehicle. Thus, neither Gurne, Funkhouser, nor Hullinger, alone or in combination, show, disclose, teach or suggest providing an adapter with a two interfaces, each configured for operatively coupling to a network segment of a vehicle communications network, as recited by applicants' claim. For at least this reason, the rejection of amended claim 1 should be withdrawn.

Independent claims 28, 36, 44, 51, 56, and 78 each recite a first interface and a second interface configured for operatively coupling to two vehicle networks or network segments and a third interface configured for operatively coupling to a remote computer. For the same reasons stated above with respect to claim 1, the prior art references relied upon by the examiner, independently or in combination, do not

disclose or suggest the limitations of these amended claims. Claims 2-27, 37-43, 52-55, 57-77, and 79-95 each depend from one of the amended, independent claims, and include those limitations. For at least the reasons stated above, the § 103(a) rejections of claims 2-95 should also be withdrawn.

Claims 1-95 are believed to be in condition for allowance, and such action is solicited. The Examiner is cordially invited to contact the undersigned by telephone to discuss any unresolved matters.

Respectfully submitted,



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